

Roadmap HITRIplus Clinical School 3-7 July 2023

YIOTA FOKA (GSI, SEEIIST)

FOR THE ORGANISERS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008548



3rd HITRIplus School



SPECIALIZED COURSE ON CLINICAL ASPECTS OF HEAVY ION THERAPY RESEARCH

3 - 7 July 2023 ONLINE



Specialized Course on Clinical Aspects of Heavy Ion Therapy Research

3-7 Jul 2023

Online

Europe/Zurich timezone

Home Page: <https://indico.cern.ch/event/1248018/>

Home

Organizers

Participant List

537 participants

Highest Degree (500 registrants)

- 62 Medical Doctors
- 112 PhD
- 163 Master
- 93 Bachelor
- 67 Undergraduate
- 12 Other



■ PhD ■ MD ■ MSc ■ BSc ■ HighSchool/A-levels ■ Other





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Certificate of Attendance

Lecture Recording on
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Feedback Form

webcasting with support of CERN IT:

<https://webcast.web.cern.ch/event/i1280303>

for the Opening session, then upon request

Recordings available via HITRIplus Youtube Channel

for the ones at different time zones

<https://www.youtube.com/@hitriplus9177/about>

except for some lectures, as requested

Lecturers and participants consent via registration forms

If you do not wish to have your photos/presentations posted

please contact the organisers

and/or keep your cameras switched off

Evaluation form

<https://forms.gle/aKG9kNovT6oy4ja68>

mics off !!

For Questions:

- **shared doc to insert questions**
- **zoom chat**
- **raise zoom hand**

Certificate of Attendance INFO via

- **the web page.**
- **the presentation of N. Sammut**



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Questions

Shared document to insert questions

https://docs.google.com/document/d/1obBw8Yk1jpEXqsGSkjG5X57KyNv-Qb8VAeUwh_KKczM/edit?usp=share_link

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WELCOME TO 3RD HITRIPLUS SCHOOL
LUNCH BREAK

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QUESTIONS FOR EXPERTS-ALL EXPERTS

Αρχείο Επεξεργασία Προβολή Εισαγωγή Μορφή Εργαλεία Επεκτάσεις ...

100% | Κανονικό ... | Arial | 11

Please type here your questions

If there is not enough time to answer all questions online we will try to have the lecturers answer them via the shared document

m the European Union's Horizon 2020 under grant agreement No 101008548



Specialized Course on Clinical Aspects of Heavy Ion Therapy Research

3-7 July 2023

Evening Networking
From 17:00



Networking and Career Fair Events

Link: <https://app.spatial.chat/s/IonTherapyCourse>

MON

Students ONLY
17:00-18:00

TUE

Career Fair
18:00-19:00
Speaker: MedAustron and CNAO

WED

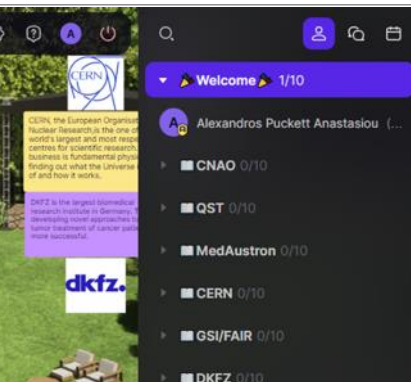
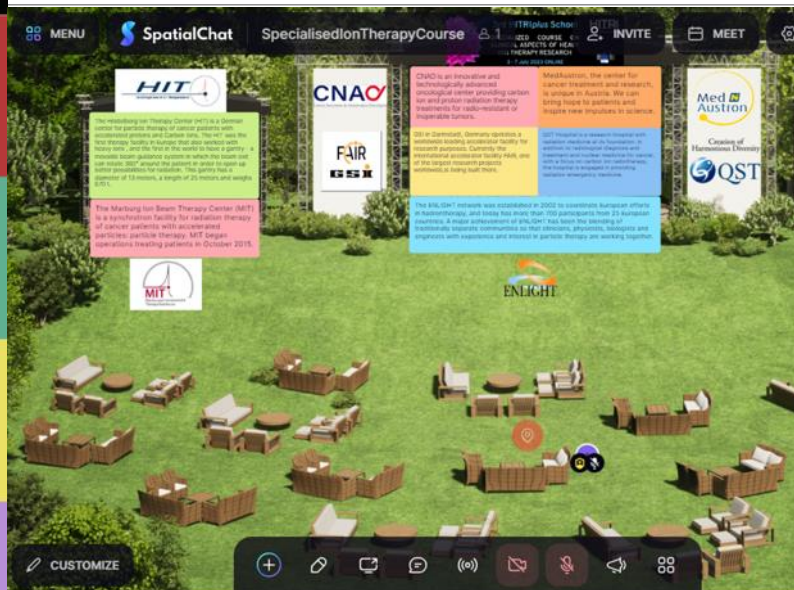
ENLIGHT (and students day)
18:00-19:00
Speaker: Manjit Dosanjh, Univ. of Oxford

THU

Career Fair
18:00-19:00
Speaker: DKFZ and GSI.

FRI

Students ONLY
17:30-18:30



Every evening From 17:00 CEST



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Networking and Career Fair Events

Link: <https://app.spatial.chat/s/IonTherapyCourse>

The Platform

SpatialChat : max 100 participants

The Events and Registration Forms

SIGN up Registration Forms for Social Events

Monday: Students ONLY: <https://forms.gle/UzKx3HrXQpjSxt1z6>

Tuesday: Career Fair MedAustron and CNAO : <https://forms.gle/mMgPCyg2hWqEVf9g9>

Wednesday: ENLIGHT Networking for students : <https://forms.gle/VzRj8b182MuLKP1a9>

Thursday: Career Fair DKFZ and GSI : <https://forms.gle/i4A2z5PZLreSdTnk9>

Friday: Students ONLY: <https://forms.gle/7H1cMrs2UQ1ke9H49>

Coffee Breaks and Students Rooms



Every evening From 17:00 CEST



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Highly Specialised Lectures

Timetable: <https://indico.cern.ch/event/1280303/>

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Main Topics:

- Radiobiology

- RBE Models
- Immunological Effects
- Hypoxia

- Head-and-Neck

- Skull Base,
- Central Nervous System
- Salivary Gland & Paranasal Sinuses
- Melanoma

- Sarcoma

- Osteo Sarcoma
- Chordoma and Chondrosarcoma
- Soft Tissue
- Ewing and Rhabdomyosarcoma

- Prostate

- Liver

- Pancreas

- Organ Motion

- Lung
- Abdomen

- Treatment Planning

- Re-irradiation

- Head and Neck
- Central Nervous System
- Pelvis

- Gynae and Rare Indications

- Adenoid Cystic Carcinoma
- Kidney
- Breast
- Paediatric

- Innovative Methods

- Linear Transfer Painting
- Spatial Fractionation
- Integration with Immune and target Drugs

- Present and Future Clinical Trials

**World Experts
mobilised by the
Scientific Committee
to cover all topics**

**Recordings available via the HITRIplus YouTube Channel
for the ones at different time zones**

<https://www.youtube.com/@hitriplus9177/about>



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Hands-on Train-the-Trainer Sessions

Timetable: <https://indico.cern.ch/event/1280303/>

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“Interactive Experiences”

Hands-on sessions, “do it yourself” guided by experts,
with real data and professional tools and methods

Hands-on results

Participants can deliver the results of hands-on session via email

to: nicholas.sammut@um.edu.mt

by Monday 10 July

This will be mentioned on the Certificate of Attendance



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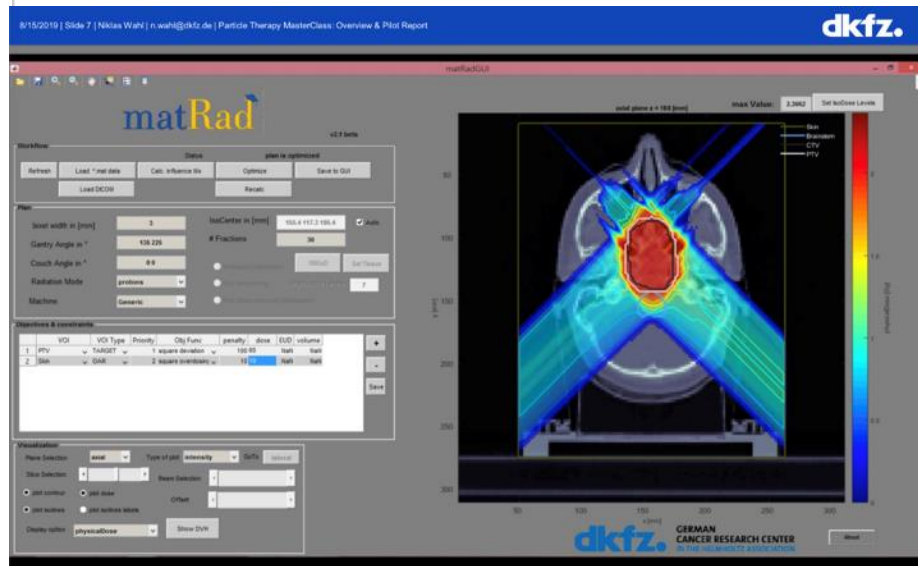
matRad Treatment Planning toolkit

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Hands-on: based on professional open source treatment planning toolkit matRad, developed by Heidelberg DKFZ www.matrad.org

17:30 → 18:00 **Demonstration of the installation of MatRad**

Speakers: Niklas Wahl (DKFZ), Yiota Foka (GSI, SEEIIST)



matRad - an open-source toolkit for dose calculation and optimization

14:15 → 14:45 **Introduction to Treatment Planning**

Speaker: Joao Seco (DKFZ)

14:45 → 16:15 **Treatment Planning with MatRad I**

Speakers: Joao Seco (DKFZ), Niklas Wahl (DKFZ)

16:15 → 16:30

16:30 → 18:00 **Treatment Planning with MatRad II**

Speakers: Joao Seco (DKFZ), Niklas Wahl (DKFZ)



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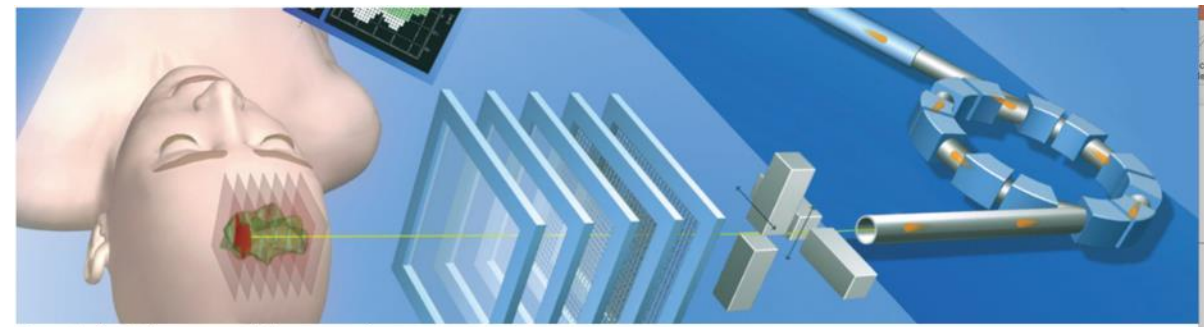


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HITRI
Heavy Ion Therapy Research Integration



Particle Therapy Masterclass

<https://indico.cern.ch/event/840212/>

Full week course

The HITRIplus specialised clinical school is **aimed at ...**
However, it is open to university students.....

Third of a series of schools and actions within HITRIplus to support the ones that *show strong promise and interest in becoming part of the heavy ion research community and who may then exploit and access Europe's heavy ion therapy research infrastructures.*

Train-the-trainer hands-on sessions based on the matRad TP toolkit which is the basis for the hands-on session of the Particle Therapy MasterClass

HITRI
Heavy Ion Therapy Research Integration

One day activity

The Particle Therapy MasterClass, is **aimed at high-school students (16-18)**, to motivate them to choose related university studies.

Future Tutors



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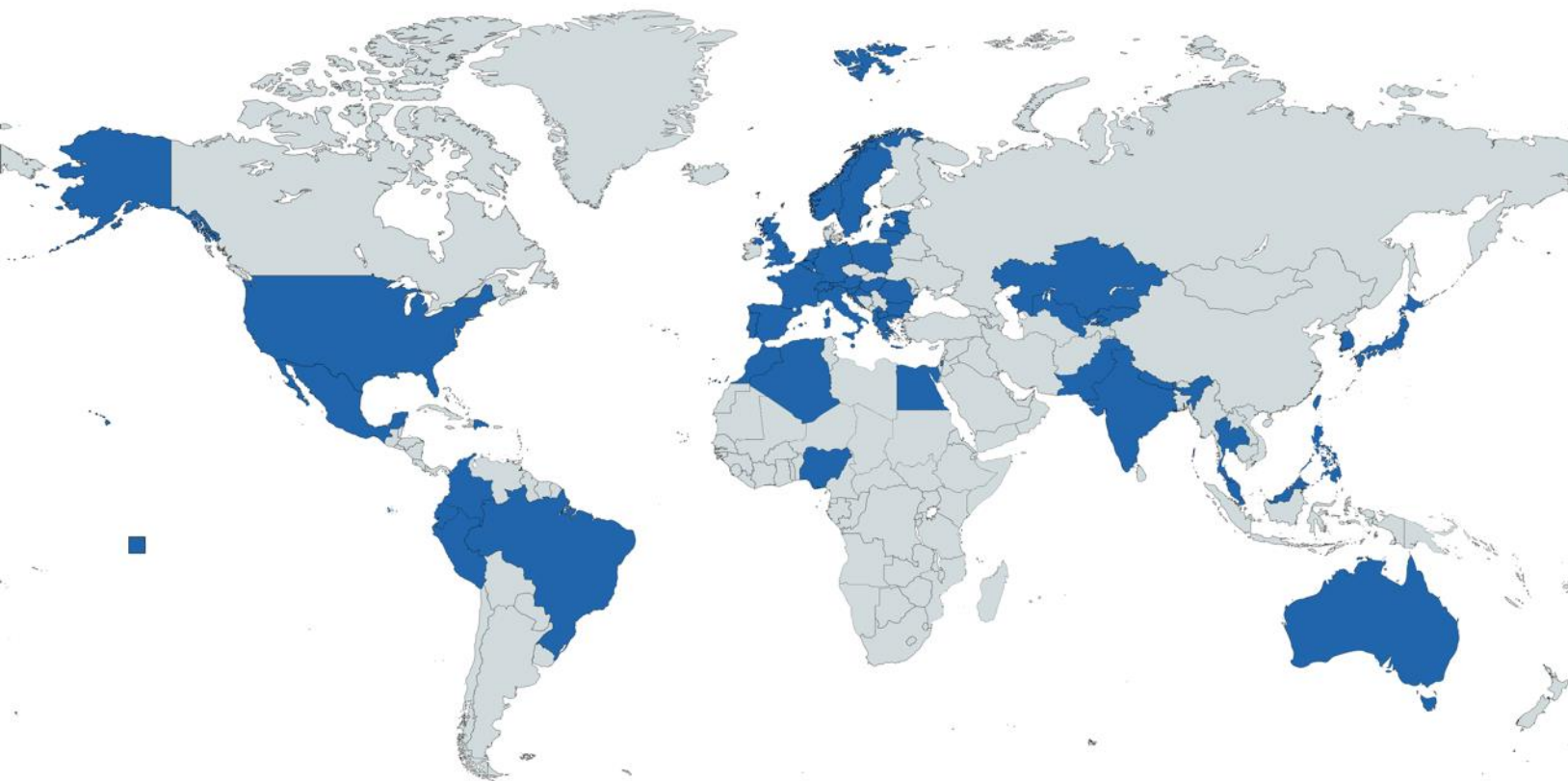
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Worldwide reach

Registrants from 40 countries

- 53 Algeria
- 36 Greece
- 35 India
- 20 N. Macedonia
-
- Malaysia, Nepal, Ecuador, Brazil



**Diversity,
sharing knowledge, know-how,
building capacity**



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Expanding in Europe and beyond



European countries:

➤ 217 registrants

Non-European countries:

➤ 233 registrants

- | | | | | |
|---------------|---------------------------|------------------|------------|-------------------|
| ■ Pakistan | ■ Kyrgyzstan | ■ Italy | ■ Algeria | ■ Uzbekistan |
| ■ Nigeria | ■ Palestinian Territories | ■ Morocco | ■ India | ■ Poland |
| ■ Egypt | ■ Germany | ■ United Kingdom | ■ Malaysia | ■ Greece |
| ■ Bulgaria | ■ Ecuador | ■ Netherlands | ■ Belgium | ■ North Macedonia |
| ■ Nepal | ■ Croatia | ■ Spain | ■ Romania | ■ Malta |
| ■ Austria | ■ United States | ■ Colombia | ■ Thailand | ■ Latvia |
| ■ Switzerland | ■ Portugal | ■ Norway | ■ Slovenia | ■ France |
| ■ Peru | ■ Brazil | ■ Mexico | ■ Estonia | ■ Philippines |



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Thanks to all lecturers

Biography and Presentations Abstracts in Speakers List

Top Experts
12 female
23 male

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Speakers and Lecturers:

- Jacques Balosso
- Amelia Barcellini
- Maria Bonora
- Manuela Cirilli
- Maria Rosaria Fiore
- Yiota Foka
- Piero Fossati
- Razvan Galalae
- Tiziana Golme
- Semi Harrabi
- Alexander Helm
- Thomas Held
- Bradford Hoppe
- Rossana Ingargiola
- Hitoshi Ishikawa
- Reiko Imai
- Carola Lütgendorf-Caucig
- Shinichiro Mori
- Silvia Molinelli

Institutes:

- ARCHADE
 CNAO
 CNAO
 CERN
 CNAO
 GSI/SEEIIST
 MedAustron
 MedAustron
 CNAO
 HIT
 GSI
 HIT
 Mayo
 CNAO
 QST
 QST
 MedAustron
 QST
 CNAO

- Kazutoshi Murata
 - Tatsuya Ohno
 - Roberto Orecchia
 - Ester Orlandi
 - Maciej Pelak
 - Arnold Pompos
 - Giulia Riva
 - Mack Roach
 - Nicholas Sammut
 - Joao Seco
 - Makoto Shinoto
 - Walter Tinganelli
 - Slavisa Tubin
 - Barbara Vischioni
 - Niklas Wahl
 - Masaru Wakatsuki
 - Shigeru Yamada
 - Katharina Seidensaal
- QST
 GHMC
 IEO
 CNAO
 MedAustron
 UTSW
 CNAO
 UCSF
 UniMalta
 DKFZ
 QST
 GSI
 MedAustron
 CNAO
 DKFZ
 QST
 QST
 QST
 HIT



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Thanks to all co-organisers and assistants teams

Contact us at hitm.school@cern.ch

Scientific Committee:

P. Fossati, chair (MedAustron)

E. Orlandi (CNAO)

S. Harrabi (HIT)

S. Yamada (QST)

Y. Foka (GSI/SEEIIST)

N. Sammut (Uni. Malta)

Organising Committee:

Y. Foka, chair (GSI/SEEIIST)

M. Cirilli (CERN)

P. Fossati (MedAustron)

N. Sammut (Uni. Malta)

Scientific Assistants:

M. Dallas (AUFh)

D. Giannakeri (AUFh)

I. Mitsiou (AUFh)

K. Koritsidis (AUFh)

K. Kostakis (AUFh)

A. Puckett Anastasiou (AUFh)

E. Theodoridou, chair (AUFh)

E. Xanthopoulou (AUFh)

**Special Thanks
to the
Scientific Committee**



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MORE PRECISE ON TUMOR
LESS INVASIVE ON HEALTHY TISSUES

Scientific and Organising Committee:

P. Fossati chair (MedAustron)
E. Orlandi (CNAO)
S. Harrabi (HIT)
S. Yamada (OST)
Y. Foka chair (GSI/SEEIIST)
M. Cirilli (CERN)
N. Sammut (Uni. Malta)

Scientific Assistants:

D. Giannakeri (AUTH)
I. Mitsiou (AUTH)
K. Koritsidis (AUTH)
K. Kostakis (AUTH)
A. Puckett Anastasiou (AUTH)
E. Theodoridou chair (AUTH)
E. Xanthopoulou (AUTH)
M. Dallas (AUTH)

Topics:

Radiobiology, Head-and-Neck, Sarcoma, Prostate, Liver, Pancreas, Gynae and Rare Indications, Re-irradiation, Organ Motion, Treatment Planning, Innovative Methods, Present and Future Clinical Trials

CLICK AND DISCOVER THE PROGRAMME

THE REGISTRATION IS OPEN UNTIL



June 25, 2023



<https://indico.cern.ch/event/1248018>



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Evening Networking
From 17:00

MON	Students ONLY 17:00-18:00
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Special Thanks to **SpatialChat** for facilitating Social Events

Thanks to the Artists Teams

**Enjoy !!
the School
and
its Social Events !**

**Thanks
for participating !**





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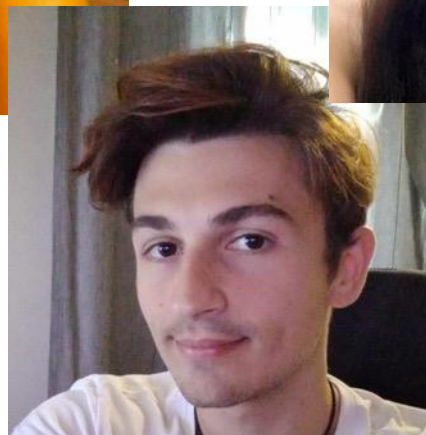
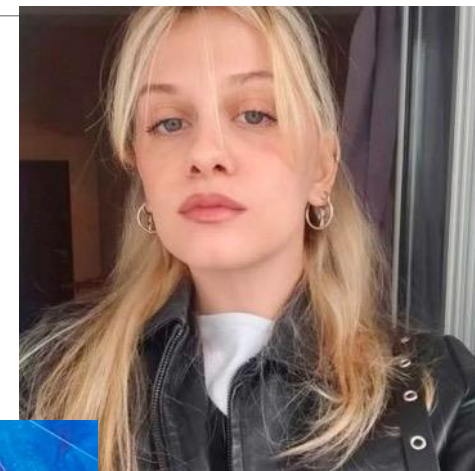
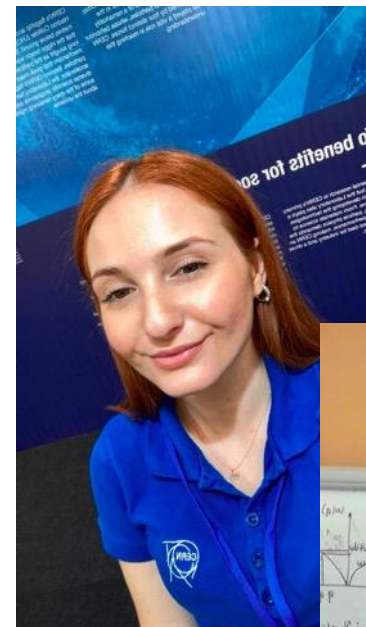
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HITRI
Heavy Ion Therapy Research Integration



Thanks to the Assistants Team



ready to assist with any issues ! contact us at hitm.school@cern.ch